Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1 - 18 (Cancelled)

19. (Currently Amended) A method of treating hypercholesterolemia in a patient, comprising administering a therapeutically effective dose of pyridoxal-5'-phosphate, a 3-acylated analogue of pyridoxal or pyridoxal-4,5-aminal, pyridoxine phosphate analogue, or a mixture thereof, to lower total cholesterol levels.

20 - 37 (Cancelled)

- 38. (New) The method of claim 19 further comprising administering a HMG CoA reductase inhibitor.
- 39. (New) The method of claim 38 wherein the HMG CoA reductase inhibitor is selected from the group consisting of pravastatin, lovastatin, fluvastatin, atorvastatin, simvastatin, rosuvastatin, velostatin, and fluindostatin.
- 40. (New) The method of claim 39 wherein the HMG CoA reductase inhibitor is simvastatin.
- 41. (New) The method of claim 19 wherein the 3-acylated analogue of pyridoxal is a compound according to the formula

$$\begin{matrix} \text{CHO} \\ \text{R}_1 \\ \text{O} \\ \text{H}_3 \text{C} \end{matrix} \qquad \begin{matrix} \text{CHO} \\ \text{N} \end{matrix}$$

wherein R_1 is alkyl,

in which alkyl can be interrupted by nitrogen, oxygen, or sulfur, and can be unsubstituted or substituted at the terminal carbon with hydroxy, alkoxy, alkanoyloxy, alkoxyalkanoyl, or alkoxycarbonyl;

alkenyl,

alkoxy;

dialkylamino;

alkanoyloxy;

alkanoyloxyaryl;

alkoxyalkanoyl;

alkoxycarbonyl;

dialkylcarbamoyloxy;

aryl,

in which aryl can be substituted by alkyl, alkoxy, amino, hydroxy, halo, nitro, or alkanoyloxy;

aryloxy;

arylthio; or

aralkyl.

42. (New) The method of claim 19 wherein the 3-acylated analogue of pyridoxal-4,5-aminal is a compound according to the formula

$$\begin{matrix} R_1 & & \\ & & \\ R_1 & & \\$$

wherein R_1 is

alkyl,

in which alkyl can be interrupted by nitrogen, oxygen, or sulfur, and can be unsubstituted or substituted at the terminal carbon by hydroxy, alkoxy, alkanoyloxy, alkanoyloxyaryl, or alkoxyalkanoyl, alkoxycarbonyl;

alkenyl,

alkoxy;

dialkylamino;

alkanoyloxy;

alkanoyloxyaryl;

alkoxyalkanoyl;

alkoxycarbonyl;

dialkylcarbamoyloxy;

aryl,

in which aryl can be substituted by alkyl, alkoxy, amino, hydroxy, halo, nitro, or alkanoyloxy;

aryloxy;

arylthio; or

aralkyl; and

R₂ is a secondary amino group.

43. (New) The method of claim 19 wherein the pyridoxine phosphate analog is a compound according to the formula

(a)

$$R_1O$$
 R_2
 R_3
 C
 P
 OR_2
 R_4
 OR_5

wherein,

R₁ is hydrogen or alkyl;

R₂ is –CHO, -CH₂OH, -CH₃, -CO₂R₆ in which R₆ is hydrogen, alkyl, or aryl, or –CH₂O alkyl in which alkyl is covalently bonded to the oxygen at the 3-position instead of R₁;

R₃ is hydrogen and R₄ is hydroxy, halo, alkoxy, alkanoyloxy, alkylamino, or arylamino, or R₃ and R₄ are halo; and

R₅ is hydrogen, alkyl, aryl, aralkyl, or -CO₂R₇ in which R₇ is hydrogen, alkyl, aryl, or aralkyl;

(b)

$$\begin{array}{c|c} R_1O & & O & \\ \hline & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\$$

wherein,

R₁ is hydrogen or alkyl;

R₂ is –CHO, -CH₂OH, -CH₃, -CO₂R₅ in which R₅ is hydrogen, alkyl, or aryl, or –CH₂O alkyl in which alkyl is covalently bonded to the oxygen at the 3-position instead of R₁;

R₃ is hydrogen, alkyl, aryl, or aralkyl;

 R_4 is hydrogen, alkyl, aryl, aralkyl, or $-CO_2R_6$ in which R_6 is hydrogen, alkyl, aryl or aralkyl; and n is 1 to 6; and

(c)

wherein,

R₁ is hydrogen or alkyl;

R₂ is -CHO, CH₂OH, -CH₃, -CO₂R₈ in which R₈ is hydrogen, alkyl, or aryl, or -CH₂O-alkyl in

4120280-1 5

which alkyl is covalently bonded to the oxygen at the 3-position instead of R₁;
R₃ is hydrogen and R₄ is hydroxy, halo, alkoxy, or alkanoyloxy, or R₃ and R₄ can be taken together to form =O;

R₅ and R6 are hydrogen or R₅ and R6 are halo; and

R₇ is hydrogen, alkyl, aryl, aralkyl, or -CO₂R₈ in which R₈ is hydrogen, alkyl, aryl, or aralkyl.

- 44. (New) A method of reducing statin induced hepatotoxicity comprising administering a therapeutically effective dose of pyridoxal-5'-phosphate to a patient wherein the patient is being treated with a HMG CoA reductase inhibitor.
- 45. (New) The method of claim 44 wherein the HMG CoA reductase inhibitor is selected from the group consisting of pravastatin, lovastatin, fluvastatin, atorvastatin, simvastatin, rosuvastatin, velostatin, and fluindostatin.
- 46. (New) The method of claim 45 wherein the HMG CoA reductase inhibitor is simvastatin.
- 47. (New) A method of reducing statin induced hepatotoxicity comprising a) detecting alanine transferase in a patient being treated with a HMG CoA reductase inhibitor; and b) co-administering pyridoxal-5'-phosphate with the HMG CoA reductase inhibitor in the patient with increased alanine trasferase.
- 48. (New) The method of claim 47 wherein the HMG CoA reductase inhibitor is selected from the group consisting of pravastatin, lovastatin, fluvastatin, atorvastatin, simvastatin, rosuvastatin, velostatin, and fluindostatin.
- 49. (New) The method of claim 48 wherein the HMG CoA reductase inhibitor is simvastatin.